

DETAILED ACTION

1. This action is responsive to communications: The Amendment filed 12/27/07.
2. The objection to the specification has been withdrawn as necessitated by Amendment.
3. The objection to the drawings has been withdrawn as necessitated by Amendment.
4. The rejection of claims 5-17 under 35 U.S.C. 112, second paragraph, has been withdrawn as necessitated by Amendment.
5. The rejection of claims 14-17 under 35 U.S.C. 101 have been withdrawn as necessitated by Amendment.
6. Claims 1-17 are pending in this case. Claims 1, 5, and 14 are independent claims.

Claim Objections

7. Claims 1 and 14 are objected to because of the following informalities: The term “the non-abstract layer” lacks proper antecedent basis. The claims should be amended to read, “a non-abstract layer.” Appropriate correction is required.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Bangs et al (US-5,802,380 09/01/98).

-In regard to substantially similar independent claims 1 and 14, Bangs teaches a method of handling editing operations of objects on a video display in an application running on a computer system (Fig. 2A & 2B) comprising: providing an application program interface (column 6, lines 65-67: “application program can access documents...interface”) with a text data model abstract layer (column 12, lines 34-36: “ITextDocument interface for accessing the characters of a document”), wherein the text data model abstraction layer provides access to a text store (column 5, lines 63-67: “access to text that is provided by servers”; column 12, lines 34-36: “ITextDocument interface for accessing the characters of a document”)(Fig. 3: 302: “text object”) and is invoked by a text editing layer for performing text editing operations (column 6, lines 64-67; column 1, lines 1-8 & 41-44: “TOM specifies a hierarchy of interfaces through which various text manipulation functions can be accessed...editing...of text”); detecting an edit operation for an object displayed on the video display by the computer system (column 6, lines 21-26: “a request to modify a selected one of the defined ranges....modify the selected range”); and sending an edit operation request to the non-abstract layer (column 22, lines 62-67; column 23, lines 1-49: i.e. “ITextFont” or “ITextPara” abstract layer) via the application program interface to initiate editing of the object by invoking the text data model (column 6, lines 26-31: “in response, invokes the member function....modifies a selected range in accordance with the received request”; column 12, lines 35-42).

-In regard to dependent claims 2 and 15, Bangs teaches wherein the application program interface further comprises a text view model abstract layer that is invoked by a text layout layer for performing layout editing operations (column 7, lines 1-8: “displaying of text”;

column 8, lines 48-53; column 22, lines 62-67; column 23, lines 1-49; i.e. “ITextFont” or “ITextPara” abstract layer).

-In regard to dependent claims 3 and 16, Bangs teaches wherein the text data model comprises a text container abstract class for storing a linear piece of text (column 7, lines 3-4: “ITextDocument”, “ITextRange”) and a text position abstract class for identifying a location within the piece of text (column 7, lines 4: “ITextRange”, “ITextSelection”).

-In regard to dependent claims 4 and 17, Bangs teaches a text navigator abstract class for moving between one or more locations within the text container (column 7, lines 4: “ITextRange”, “ITextSelection”; column 14, lines 43-52; column 20, lines 55-67).

-In regard to independent claim 5, Bangs teaches a system for editing objects displayed by a computer comprising: a processor (column 9, 61-62: “processor”); and a memory (column 9, lines 62: “memory”) coupled with and readable by the processor and containing instructions that, when executed by the processor, cause the processor to detect an edit operation for an object (column 6, lines 21-26: “a request to modify a selected one of the defined ranges....modify the selected range”) displayed on the video display (Fig. 2A: 2A04) by the computer system, send an edit operation request from an application program via an application program interface to an abstraction layer (column 6, lines 64-67; column 7, lines 1-8 & 41-44: “various text manipulation functions”...“application program interface”) within the interface to initiate editing of the object by the abstraction layer causing the abstraction layer to receive the edit operation request column

6, lines 26-31: "in response, invokes the member function....modifies a selected range in accordance with the received request", determine a container type for a container in which the object is displayed (column 6, lines 22-29: i.e. determining the selected range from the plurality of define ranges based on the user request; column 7, lines 9-19: "document comprises one or more stories...defined collection of text...viewed as a contiguous section of text"; column 8, lines 26-30: "each story is a contiguous string of characters and associated properties"; column 12, lines 35-45: "characters of each story are accessed through an...range object...one active story at a given instance"), read a set of properties related to the object to be edited (column 6, lines 16-17: "each range has at least one property"; column 25, lines 1-11: "property of each of the defined ranges is a start character position and a limit character position"), read a set of properties related to the container in which the object is displayed to determine a type for the container (column 8, lines 42-52: i.e. the defined range position), and edit the object based on the container type and the received edit operation request (column 6, lines 25-29: "The member function modifies a selected range in accordance with the received request").

-In regard to dependent claim 6, Bangs teaches wherein the type of container is a text container having a framework class (column 7, lines 1-8).

-In regard to dependent claim 7, Bangs teaches wherein the framework class includes a dependency object class used as an abstract representative for text structuring elements (column 14, lines 43-67: "ITextRange").

-In regard to dependent claim 8, Bangs teaches wherein the framework class includes a dependency property object class containing formatting information on the dependency object class (column 22, lines 62-67; column 23, lines 1-38: “accessing the attributes of the characters in a range...color, font size, capitalization, etc”.....”ITextPara”).

-In regard to dependent claim 9, Bangs teaches one or more base types (column 17, lines 18-25: “FindFromEnd”; column 18, lines 19-22: “returns the type”).

-In regard to dependent claim 10, Bangs teaches wherein one of the base types is a logical direction type for indicating direction in linear text space (column 17, lines 18-25: “searches in the direction indicated by the sign position of the count”; column 18, lines 46-52: “moves the insertion point....in the direction indicated by the sign”; column 21, lines 1-12: i.e. Down, Up, Left, Right, etc).

-In regard to dependent claim 11, Bangs teaches an abstract text position class defining a mechanism for identifying location within text in the text container (column 8, lines 42-67; column 9, lines 1-24; column 12, lines 34-48: “ITextDocument Interface”; column 14, lines 42-52: “ITextRange Interface”).

-In regard to dependent claim 12, Bangs teaches an abstract class text navigator providing content exploration functionality within the object (column 14, lines 42-67: i.e. FindText, FindFromEnd, FindFromStart, etc.).

-In regard to dependent claim 13, Bangs teaches a view model for the text container to provide one or more presentational characteristics of the text container (column 22, lines 62-67; column 23, lines 1-48: i.e. ITextFont and ITextPara provides for accessing the presentation characteristics of the text container).

Response to Arguments

10. Applicant's arguments filed 12/27/07 have been fully considered but they are not persuasive.

-In regard to independent claims 1 and 14, Applicant argues that Bangs fails to teach or suggest the two layers as recited in amended claim 1. The Examiner respectfully disagrees with the Applicant. Bangs clearly teaches a plurality of abstraction layers, wherein the abstraction layers are specified in a given hierarchy of interfaces (column 6, lines 65-67; column 7, lines 1-7). As related to independent claim 1 and 14 above, Bangs clearly teaches wherein a user could utilize the text object model (TOM) layer to invoke a text data model layer (i.e. ITextDocument interface) for performing text editing operations. As a result of the hierarchical nature of the interfaces of Bangs, a plurality of interface relationships could be utilized in the rejection of said independent claims. As an example, the ITextDocument interface (i.e. now the text editing abstraction layer) was also utilized to invoke the ITextRange abstraction (i.e. now the text data model layer) for accessing and editing the text store (column 12, lines 34-42: "provides methods for...creating and providing access to range objects...accessed through an ITextRange interface"; column 14, lines 43-46).

-In regard to independent claim 5, Applicant argues that Bangs fails to teach or suggest reading a set of properties related to the container in which the object is displayed to determine a type for the container. The Examiner respectfully disagrees with the Applicant. Bangs clearly teaches wherein a document object could contain a plurality of story object (e.g. "main text", "footnotes", "index"), wherein each story object was defined by a contiguous section of text (column 7, lines 9-15). Bangs further teaches wherein each story object had associated properties (column 8, lines 25-30: "associated properties") and wherein the associated properties of a contiguous range of text could be the start and limit character positions of the text (column 25, lines 1-6). Thus when a user requests a given range or a selection within a given range, the container type was determined by the properties of the container based on the relationship between the set range values for the defined stories and the user inputted selected range values (column 6, lines 26-29: "invokes the member function of the range object associated with the selected range. The member function modifies a selected range in accordance with the received request"). To what extent the object is edited based on the determined container type is not clearly defined in the claim and thus the Examiner believes the disclosure of Bangs meets said limitations.

In general the Examiner believes the "container" and "container type" limitations to be broadly recited in the claims and as such they have been given their broadest reasonable interpretation in the art. While not relied upon in the rejection, please note that the Background of Invention of Bangs also clearly shows determining a container type for a content object based on the type of document containing the content object (i.e. spreadsheet vs. word processing

document). Said determination resulting in the type of abstraction class member functions selected for editing the content object.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Please note the additionally cited prior art references on the accompanying PTO-892 form.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adam L. Basehoar whose telephone number is (571)-272-4121. The examiner can normally be reached on M-F: 7:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Hong can be reached on (571) 272-4124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Adam L Basehoar/
Primary Examiner, Art Unit 2178